

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application. Claims 1-6 and 8-20 remain in the application, and claims 1, 18 and 20 are independent. The Office Action dated August 7, 2009 has been received and carefully reviewed. Each issue raised in the Office Action is addressed below. Reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Examiner Interview

Following receipt of the Office Action, Applicant requested an Interview with Examiner Isaak Jama and his Supervisor to discuss the rejections of record. Applicant and Applicant's representative Paul T. Sewell wish to thank Examiner Jama for the courtesies extended to Applicant's representative during the telephone interview, which was conducted on October 26, 2009. During the Interview we discussed in detail the features of the invention and the claim construction of the independent claims. Examiner Jama indicated that the present application appears to describe a patentable invention, subject to finding suitable language to describe it in the claims. We further discussed a proposed change to clarify the meaning of the transmission channels between the base device and the wireless terminal and an editorial clarification of the time for channel switching recited in the last subparagraph of each independent claim. Examiner Jama provided some recommended language for clarification, which we have adopted in the instant amendment. Examiner Jama also offered to call Applicant should any further clarification be necessary to make the claims patentable. The above constitutes Applicant's summary of the statement of the Interview.

Claim Rejections – 35 U.S.C. § 112 for Written Description

Claims 1, 18 and 20 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. This rejection is respectfully traversed.

Responsive to Applicant's arguments that the applied references are only directed to selection a broadcast channel rather than communication using switching of transmission

channels, the Office Action indicates that the “Examiner is unable to find where in the Applicant’s disclosure such a recitation may be found.” As a result the Office Action rejects claims 1, 18 and 20 because these claims recite a “base device which communicates using a plurality of transmission channels, recitation that is not in the Applicant’s application.” (underlining in original)

As was discussed at great length in the Interview, it is submitted that the disclosure as filed provides ample support for selection of a broadcast channel and support for a base device which communicates by switching from among a plurality of transmission channels. At the outset, Applicant would like to again reference page 37, lines 1-12 of the specification and Figure 9, page 48, line 20 through page 49, line 3 and Figure 17 and page 51, lines 15-22 and Figure 18, as were discussed in the Interview. They each provide clear support for and a detailed explanation of the channel switching in the invention. More specifically, note for example, pages 16 and 17 of the specification that describe that BS tuner 31 and U/VHF tuner 32 receive and select a “broadcast program” in accord with the channel selection signal 41, which is shown in Figure 2 of the drawings as filed. And much of the remainder of the specification starting at page 20, describing the storage of the “transmission channel switching program” in EEPROM 65, and the state transition diagrams for explaining the method of switching transmission channels, for example shown in Figures 4 to 7, and described starting on page 26 of the specification, and the process for transmission channel switching shown for example in Figure 9, and continuing through pages 48-53 describing the transmission channel switching process and transmission channel switching determination described for example in Figures 17 and 18, is directed to a full written description of the switching of transmission channels. These portions of the disclosure are given merely by way of example only, and the disclosures as to transmission channel switching should not be construed to be limited only to these examples. Furthermore, the first full paragraph on page 75 of the specification states:

“Furthermore, the wireless terminal according to the present invention may be arranged such that the wireless terminal switches the transmission channels either (i) every cycle corresponding to not less than a period during which the base device selects all the transmission channels, or (ii) every cycle corresponding to a period during which the base device selects all the transmission channels and which corresponds to time in

which the wireless terminal maintains one of the transmission channels.”

And the third full paragraph on page 78 of the specification states:

“Furthermore, the base device according to the present invention may be arranged such that the wireless terminal switches the transmission channels either (i) every cycle corresponding to not less than a period during which the wireless terminal selects all the transmission channels, or (ii) every cycle corresponding to a period during which the base device selects all the transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels.”

Thus, Applicant submits that there is clear support for selection of a broadcast channel as well as support for a base device which communicates by switching from among a plurality of transmission channels, and that the application disclosure as filed clearly indicates Applicant was in possession of what is claimed at the time of filing the application. Among other places, MPEP § 2163 describes the written description requirement, which is in its essence the requirement that Applicant be in possession of what is claimed at the time of filing the application. By reference to the portions of the specification detailed above by way of example, it should be clear that the specification as filed provides ample evidence that such transmission channel switching was a feature of the invention when the application was filed. Moreover, original claims 7 and 15 also provide this same support.

Applicant notes that this rejection was only presented after the original claim language of claims 7 and 15 was changed slightly from switching transmission channels every cycle ... in which the base device “selects all of the transmission channels” to switching transmission channels every cycle ... in which the base device “selects each one of the plurality of the transmission channels.” Thus, it is possible the rejection originated from the failure of the specification to include the exact language now claimed. Among other places, MPEP § 2163 makes clear that “there is no *haec verba* requirement”, only that “newly added claim limitations be supported in the specification through “express, implicit or inherent disclosure.” Here the phrase “each one of” merely carries the plain meaning defined by the words – that the transmission channels are switched through each one of, or in other words all of the transmission channels, as shown in the Figures referenced above, and that this transmission channel switching is merely a rephrasing of the prior language that the base device selects “all of the transmission

channels” as in original claims 7 and 15 and as recited on pages 75 and 78 of the specification. It is submitted that switching between all of a group of things is the same as switching between each one of a group of things. Therefore, since there is an express description of what is claimed using words that clearly mean the same thing, it is submitted that Applicant was in possession of the now claimed subject matter. Should the Examiner require it, Applicant would have no objection to adding the phrase at issue to the specification. Reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 4-6, 8-11 and 13-20 stand rejected under 35 U.S.C. § 103(a) as obvious over Margulis in view of Hsu and U.S. Pat. No. 6,930,661 to Uchida et al. (“Uchida”). Applicant submits the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverses the rejection. A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the cited references must teach or suggest each and every element in the claims. See MPEP § 706.02(j); MPEP §§ 2141-2144.

Applicant respectfully submits that independent claims 1, 18 and 20 recite a combination of elements in a wireless terminal, a method of controlling a wireless terminal and a product controlling same including a base device which communicates using a plurality of transmission channels, either (i) video data and/or audio data, or (ii) a control command containing transmission channel switching information; and wherein the wireless terminal switches the transmission channels either (i) every cycle corresponding to at least a period during which the base device selects each one of the plurality of transmission channels, or (ii) every cycle corresponding to a period during which the base device selects each one of the plurality of transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels. Applicant respectfully submits that this combination of elements as set forth in independent claims 1, 18 and 20 is not disclosed or made obvious by the prior art of record, including Margulis, Hsu and Uchida.

Margulis merely shows a conventional wireless television system that may select from

among a number of **broadcast input sources 122, 128, 134** input to a switcher 138 and selected by a remote controller 310. Margulis fails to show or suggest communication between a base device and a wireless terminal through a plurality of transmission channels, not broadcast channels, and wherein the wireless terminal switches the transmission channels either (i) every cycle corresponding to at least a period during which the base device selects each one of the plurality of transmission channels, or (ii) every cycle corresponding to a period during which the base device selects each one of the plurality of transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels.

Hsu shows a communication condition detection system wherein a monitor tool 21 monitors signal communication conditions between a mobile station 5 and a wireless network 3. Hsu fails to show or suggest communication between a base device and a wireless terminal through a plurality of transmission channels, not broadcast channels, and wherein the wireless terminal switches the transmission channels either (i) every cycle corresponding to at least a period during which the base device selects each one of the plurality of transmission channels, or (ii) every cycle corresponding to a period during which the base device selects each one of the plurality of transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels.

The Examiner states that Uchida selects broadcast television signals of a selected channel and that broadcast channels “can be regarded as transmission channels”. Applicant respectfully submits that to the contrary, that is not what is being claimed. The claims require switching between “each one of the plurality of transmission channels” over specifically defined periods. None of the applied references switch between broadcast channels in this manner. The claims now make clear, as they did before, that the selection of a broadcast channel is not the selection being claimed. Clearly, the claims are directed to communication between a base device and a wireless terminal through a plurality of transmission channels, not broadcast channels, and wherein the wireless terminal switches the transmission channels either (i) every cycle corresponding to at least a period during which the base device selects each one of the plurality of transmission channels, or (ii) every cycle corresponding to a period during which the base device selects each

one of the plurality of transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels.

A careful review of Uchida reveals it only includes the following features: a bidirectional communication system which includes external devices such as a display apparatus 100, a base apparatus 200 and a set-top box 300; the display apparatus 100 transmits a control signal to the base apparatus 200; in accordance with a control signal from the display apparatus 100, the base apparatus 200 (a) selects a video signal and/or an audio signal (which is in this case an analog television broadcast signal) that the base apparatus 200 itself has received or (b) transmits a control signal to an external apparatus such as the set-top box 300 which receives digital satellite broadcast signals; and the display apparatus 100 receives a video signal and/or an audio signal from the base apparatus 200 or from the external apparatus such as the set-top box 300 via the base apparatus 200. Thus, Uchida neither discloses nor suggests (1) the wireless terminal communicates with the base device by using a plurality of transmission channels, and (2) the base device selects each one of the plurality of transmission channels in every cycle.

Furthermore, a feature of the instant wireless communication is based upon a transmitter transmitting a confirmation signal to a receiver, the transmitter waiting for reception of an acknowledge signal ACK transmitted from the receiver, and when the transmitter does not receive the ACK signal with the predetermined period of time TS , the transmission channels are switched. And in conjunction with the processing at the transmitter, the receiver also switches the transmission channels, such that when the receiver does not receive the confirmation signal within a predetermined period of time $TJ > TS$, the transmission channel is switched.

In addition, according to one feature of the invention, the wireless terminal switches the transmission channels every cycle corresponding to at least a period during which the base device selects all of the transmission channels. Therefore, even when the wireless terminal and the base device simultaneously switch the transmission channels, this feature of the invention makes sure to find a transmission channel on which the wireless terminal and the base device can communicate with each other, thus ensuring communication. Uchida does not show or suggest this feature.

Finally, the wireless terminal having this feature switches transmission channels every cycle corresponding to a period during which the base device selects all the transmission channels and

corresponds to time in which the wireless terminal maintains one of the transmission channels. Consequently, another feature of the invention is that all of the transmission channels are examined until the wireless terminal stops maintaining one of the transmission channels, and thereafter the wireless terminal switches the transmission channels, and thus, constant communication can be ensured by switching the transmission channels so as to avoid interruption of the communication. Uchida does not show or suggest this feature. Applicant respectfully submits that the combination of elements as set forth in independent claims 1, 18 and 20 is not disclosed or made obvious by the prior art of record, including Margulis, Hsu and Uchida, for the reasons explained above. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

With regard to dependent claims 4-6, 8-11, 13-17 and 19, Applicant submits that claims 4-6, 8-11, 13-17 and 19 depend, either directly or indirectly, from independent claim 1 which is allowable for the reasons set forth above, and therefore claims 4-6, 8-11, 13-17 and 19 are allowable based on their dependence from claim 1. Reconsideration and allowance thereof are respectfully requested.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Margulis, Hsu and Uchida, and further in view of Forler. This rejection is also respectfully traversed. Forler was cited to show a viewer blocking system that permits access to a channel or maintains the channel as unblocked, as described in column 6. Forler fails to show or suggest communication between a base device and a wireless terminal through a plurality of transmission channels, not broadcast channels, and wherein the wireless terminal switches the transmission channels either (i) every cycle corresponding to at least a period during which the base device selects each one of the plurality of transmission channels, or (ii) every cycle corresponding to a period during which the base device selects each one of the plurality of transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels, and therefore fails to remedy the defects of Margulis, Hsu and Uchida discussed above. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 3 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Margulis, Hsu and Uchida, and further in view of Sano. This rejection is also respectfully traversed. Sano was cited for a LAN radio system which can display reception quality based on field intensity. Sano

fails to show or suggest communication between a base device and a wireless terminal through a plurality of transmission channels, not broadcast channels, and wherein the wireless terminal switches the transmission channels either (i) every cycle corresponding to at least a period during which the base device selects each one of the plurality of transmission channels, or (ii) every cycle corresponding to a period during which the base device selects each one of the plurality of transmission channels and which corresponds to time in which the wireless terminal maintains one of the transmission channels, and therefore cannot remedy the defects of Margulis, Hsu and Uchida discussed above. Reconsideration and withdrawal of this rejection are respectfully requested.

Conclusion

All objections and rejections raised in the Office Action having been properly traversed and addressed, it is respectfully submitted that the present application is in condition for allowance. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Notice of same is earnestly solicited.

Prompt and favorable consideration of this Amendment is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Paul T. Sewell, Registration No. 61,784, at (703) 205-8000, in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

Michael R. Cammarata
Registration No.: 39,491
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant